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RESEARCH

Perfil socioepidemiológico e clínico de idosos afetados por hanseníase: contribuições para a enfermagem

Social-epidemiologic and clinical profile of elderly people affected by leprosy: contributions to nursing

Perfil socio-epidemiológico y clínico de adultos mayores afectados por la lepra: contribuciones para la enfermería

Lucian da Silva Viana ¹, Maria Isis Freire de Aguiar ², Dorlene Maria Cardoso de Aquino ³

ABSTRACT

Objective: tracing the social-epidemiologic and clinical profile of old people affected by leprosy. **Method:** a descriptive study of a quantitative approach, with a sample of 60 elderly people affected by leprosy, in two rehabilitation centers in São Luís (MA). A semi-structured questionnaire was used, containing identification data, social epidemiologic and clinical aspects, analyzed by the program EpiInfo version 7. **Results:** among the elderly, most were between 60 to 69 years old (53,3%), male (58,3%), brown color (66,6%), married (45%) and up to 6 (six) household contacts (76,6%). In relation to the operational rating, 95% were Multibacillary forms, with predominance to the Dimorphic (60%) and Wirchowiana (25,5%), the majority in 1 degree of disability (45%) and making use of multidrug therapy/Multibacillary/12 doses (93%). **Conclusion:** this information can contribute to different aspects and managerial assistance, as well as make it possible to provide integral care as advocates the principles and guidelines of the Unified Health System. **Descriptors:** Aged, Leprosy, Health profile, Nursing.

RESUMO

Objetivo: traçar o perfil socioepidemiológico e clínico de idosos afetados por hanseníase. **Método:** estudo descritivo de abordagem quantitativa com uma amostra de 60 idosos afetados por hanseníase em dois Centros de Reabilitação em São Luís - MA. Foi utilizado um questionário semiestruturado contendo dados de identificação, aspectos socioepidemiológicos e clínicos, analisados pelo programa EpiInfo versão 7. **Resultados:** dentre os idosos, a maioria tinha entre 60 a 69 anos (53,3%), sexo masculino (58,3%), cor parda (66,6%), casados (45%) e com até 6 (seis) contatos intradomiciliares (76,6%). Em relação à classificação operacional, 95% eram Multibacilares, com predominância para a forma Dimorfa (60%) e Wirchowiana (25,5%), a maioria em grau 1 de incapacidade (45%) e fazendo uso de Poliquimioterapia/Multibacilar/12 doses (93%). **Conclusão:** essas informações podem contribuir para diferentes aspectos gerenciais e assistenciais, bem como possibilitarem à prestação do cuidado integral, conforme preconiza os princípios e diretrizes do Sistema Único de Saúde. **Descritores:** Idoso, Hanseníase, Perfil de saúde, Enfermagem.

RESUMEN

Objetivo: trazar el perfil socio-epidemiológico y clínico de las personas mayores afectadas por la lepra. **Método:** un estudio descriptivo de un enfoque cuantitativo con una muestra de 60 personas mayores afectadas por la lepra en dos centros de rehabilitación en São Luís (MA). Se utilizó un cuestionario semi-estructurado, que contiene los datos de identificación, socioepidemiológicos y aspectos clínicos, analizados por el programa EpiInfo versión 7. **Resultados:** entre los ancianos, más tenidos entre 60 y 69 años (53,3%) masculinos (58,3%), color marrón (66,6%) casados (45%) y hasta 6 (seis) contactos intradomiciliares (76,6%). En lo referente a la calificación operativa, 95% eran las formas Multibacilares, con predominio de la forma Dimorfa (60%) y Wirchowiana (25,5%), la mayoría en 1 grado de discapacidad (45%) y haciendo uso de terapia multidrogas/Multibacilares/12 dosis (93%). **Conclusión:** esta información puede contribuir a diferentes aspectos y asistencia gerencial, así como que permitan brindar atenciones integrales como defensoras de los principios y directrices del sistema unificado de salud. **Descriptor:** Anciano, Lepra, Perfil de salud, Enfermería.

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INTRODUCTION

The World Health Organization (WHO) classifies chronologically, such as the elderly, people over 65 years of age in developed countries and over 60 years of age in developing countries.¹ According to census 2010, exists in Brazil about 20 million people aged over 60 years old, representing at least 10% of the population. Statistical projections of WHO in the period 1950 to 2025, is that the group of elderly in the country is expected to have increased by fifteen times, while the total population in five in this way, Brazil will occupy sixth place as the number of elderly people, reaching in 2025 about 32 million people aged 60 or older.²

The Pan American Health Organization defines aging as a "sequential process, individual, cumulative, irreversible, universal, non-pathological, deterioration of a mature organism itself to all members of a species".^{3,6} Human aging is considered a process common to all, to vary between one person and another. This process is dependent and influenced by several factors such as: biological, psychological, social and cultural rights that attach to each person unique characteristics.⁴

Although Brazil is going through this process of population aging and the consequent reversal of the population pyramid, Brazilian society has not yet learned to value the elderly. At misinformation, prejudice and disrespect for senior citizens, they add to the precariousness of public investment to meet the specific needs of the elderly population, and even of human resources, both in quantity and in quality.⁵ This issue is compounded when the individual, in addition to the old condition is affected by stigmatizing and pejorative connotation disease, such as leprosy.

Leprosy seems to be one of the oldest diseases that affects humans, it is an infectious disease of chronic evolution that manifests itself mainly by skin lesions with decreased thermal sensitivity, painful and tactile. From infection caused by *Mycobacterium leprae*, is characterized by high infectivity and low pathogenicity, but feared the high disabling potential.²

The diagnosis of leprosy is clinical and epidemiological. It is manifested by signs and dermatological and neurological symptoms that can help in diagnostic suspicion of the disease.⁶ The nerve damage can occur before, during, and after treatment and can result in physical disabilities and long-term progress to deformities. The degree of nerve damage at diagnosis reflects the delay between onset of symptoms and diagnosis,⁷ which are worse in aging, that is often followed by other pathology already.

It is a disease directly linked to poverty, sanitation and housing, since overcrowding is responsible for the further spread of the bacillus through the airway. Furthermore, in general, it is a disease resulting from misinformation and lack of accessibility of health systems, since

diagnosis is eminently clinical and treatment does not require high costs or greater technological complexity instruments.⁸

The elderly affected by leprosy feels stigmatized, primarily with respect to the disease, treating it as something that mistreats and secretes. But also, with regard to aging, as they stand before a prejudiced society. Such stigmas cause in the elderly an intense feeling of rejection by family and society as a whole.⁹

Recognizing the epidemiological, social and clinical issues associated with this condition is to be relevant, since the system of organization for an efficient attention to the elderly confipopulation figure as one of the major challenges that the health sector has to face as soon as possible,⁵ particularly, in this context, where the elderly are the ones who survive the harsh conditions caused by the often brought by leprosy disability that limits social and economic life of the patient. Thus, the aim of this study was to characterizing the elderly population affected by leprosy as to socio-epidemiological and clinical aspects.

METHOD

This is a descriptive study of a quantitative approach, performed in a rehabilitation center for leprosy and a public hospital in the capital of Maranhão - State of the Brazilian Northeast, both scenarios fall into the first and second position, respectively, compared service of people affected by leprosy in the region.¹⁰

The Rehabilitation Center for Leprosy has six offices for care and multidisciplinary team of health. It provides contact exams, dermatoneurological assessment, administration of supervised doses, educational activities, education/ training in basic actions and disabilities, special dressings and adaptation of shoes, among others. It receives daily leprosy patients from all over the State of Maranhão, among them - the elderly. The hospital, the other scenario research, it is configured as a general hospital, providing specialist care for patients with/without leprosy capital and the state of Maranhão.

Data collection was conducted from December 2012 to June 2013. The study participants comprised 60 elderly diagnosed with leprosy. It was considered elderly person aged over 60 years old, based on the definition of the World Health Organization.¹ There were used as inclusion criteria: aged, with clinical diagnosis of leprosy and outpatient treatment, which sought care in local Research at the time of data collection. And as exclusion criteria: existence of psychiatric problems, neurological, visual and speech, given the possibility of compromising the reliability of the information issued in the course of data collection. These problems have been identified from the records in the chart.

To calculate the sample was used Stat Calc program EpiInfo version 7 of CDC Atlanta, based on 71 cases of leprosy in the elderly (reported in 2012 by the Health Units in São Luis County - MA, Brazil), expected frequency 18,1% confidence level of 95% and a minimum of 5% error. After the sample calculation was set at a minimum of 54 cases.

Initially, the elderly have been identified in new cases of leprosy record book and from this information, it was located the deferral card containing information on the day of attendance of the elderly for the monthly consultation. That day and after the nursing consultation, each senior was clear about the objectives and forms of participation in the study, and those who agreed to participate were asked to sign the Informed Consent (IC).

For data collection, we used a questionnaire containing old identification data, the variables using gender, age, race, marital status, socio-epidemiological and clinical aspects. The program used for this purpose was the Epi Info version 7 of CDC Atlanta. In the case of descriptive statistics, the results were analyzed in absolute and percentage numbers and are presented in tables and figures.

The study was approved by the Research Ethics Committee (CEP) of the University Hospital of the Federal University of Maranhão (HUUFMA) under the title "Quality of life in patients with leprosy elderly," the report number 289.202. After approval of the CEP, the state Department of Health (SES) of São Luís - MA authorized to search the data collection sites.

The ethical aspects have been respected, included in Resolution 196/96¹¹ and its complementary, effective during the study period to regulate research on human subjects in the country, highlighting the guaranteed confidentiality of the identity of study participants as well as privacy and the absence of any charge to the respondent. The study received no funding for its implementation.

RESULTS AND DISCUSSION

The results show that between 60 and older diagnosed with leprosy research participants, 53,3% were aged 60-69, which accounted for the highest percentage studied, followed by 35,0% of elderly people between 70-79. Among them, it identified a higher frequency of males (58,3%).

As found in this study, similar study found a predominance of males (60,0%) in the sample. In terms of age, the authors found a median age of 70,5 years old.¹²

Most considering race/brown colored (66,6%) and white (26,6%). With regard to marital status, it was observed that most elderly were married (45,0%) or lived in consensual union

(15,0%), with smaller portion for singles (13.3%), separated (11, 6%) and widows (11.6%) (Table 1).

Table 1 - Distribution of older people affected by leprosy in terms of demographic variables and marital status. São Luís, MA, 2013.

Variables	n	%
Age (years)		
60 - 69	32	53,3
70 - 79	21	35,0
80 - 89	6	10,0
90 or over	1	1,6
Gender		
Male	35	58,3
Female	25	41,6
Race/Color		
Brown	40	66,6
White	16	26,6
Black	4	6,6
Marital status		
Married	27	45,0
Live together	9	15,0
Single	8	13,3
Separated	7	11,6
Widower / widow	7	11,6
No answer	2	3,3
TOTAL	60	100,0

With regard to education, the majority (46.6%) of the elderly studied only up to the elementary school (old gym or first grade), and 20.0% were illiterate (Table 2).

It was noticed that most elderly of this study showed a low level of education, according to a study involving 250 elderly patients with leprosy, held in Taiwan, where it was observed that 24,8% of the participants were illiterate.¹³ Lower education levels may hinder access and understanding to health information and use of preventive measures, influencing directly in health care. Moreover, it is worth noting that high school and intense intellectual activity can be a prophylactic measure against cognitive decline and dementia in the elderly.³

It also noted predominance of retirees (56,6%). Regarding retirement, it is clear that their arrival often weakens the economy and reduces purchasing power, so the elderly cannot enjoy a complete well-being, due to lack of financial resources.³ This may be the reason why some seniors that research continue working. Among those who still exercise some occupation, most are Mason (6,6%), housewife (6,6%) and merchant (3,3%). Among other professions (26,6%), is: butcher, farmer, artisan, tire repairman, typist, electrician, educator, intercom, etc. This is a concern because leprosy is still affecting the lower social classes,

causing high percentages of physical disabilities that impair the ability to work and quality of life of affected, perpetuating the stigma associated with the disease.¹⁴

Among the study population, 85.0% of the elderly live at home made of brick, 13.3% lived alone; however, 46.6% and 30.0%, had one (1) to three (3) and four (4) to six (6) household contacts, respectively (Table 2). According to the literature, leprosy has in their household contacts, an important means for maintaining endemic. The increased risk of illness among contacts can be linked to family genetic susceptibility and physical proximity to the index case.¹⁵ Proper investigation of contacts contributes to the interruption of transmission of leprosy chain as early treat diagnosed cases, avoiding the spread of the bacillus and the installation of disabilities.¹⁶

Table 2 - Distribution of socio-epidemiological aspects of elderly people affected by leprosy. São Luís, MA, 2013.

Variables	n	%
Schooling		
Illiterate	12	20,0
1 st to 4 th years of ES	14	23,3
4 th year complete of ES	8	13,3
5 th to 8 th years of ES	6	10,0
Complete Elem. School	2	3,3
Incomplete High School	2	3,3
Complete High School	12	20,0
Incomplete Higher Education	1	1,6
Complete Higher Education	2	3,3
No answer	1	1,6
Occupation		
Retired	34	56,6
Mason	4	6,6
Housewife	4	6,6
Trader	2	3,3
Other	16	26,6
Type of the house		
Brick	51	85,0
Pug	5	8,3
No answer	4	6,6
Intradomiciliares contacts		
Not	8	13,3
1 (one) - 3 (three)	28	46,6
4 (four) - 6 (six)	18	30,0
7 (seven) or more	4	6,6
No answer	2	3,3
TOTAL	60	100,0

With regard to clinical aspects of leprosy affected by the elderly, according to the operational classification it was observed almost all multibacillary frequency (95,0%) compared to paucibacillary (5,0%) (Figure 1).

The operational classification is important for it to be selected chemotherapy scheme appropriate to the case. This classification is based on signs and symptoms of the disease: 1) paucibacillary (PB): cases with up to 5 skin lesions and 2) multibacillary (MB): cases with more than five skin lesions.¹⁷ The identification of the form multibacillary in most elderly can be considered a reflection of late diagnosis of leprosy.

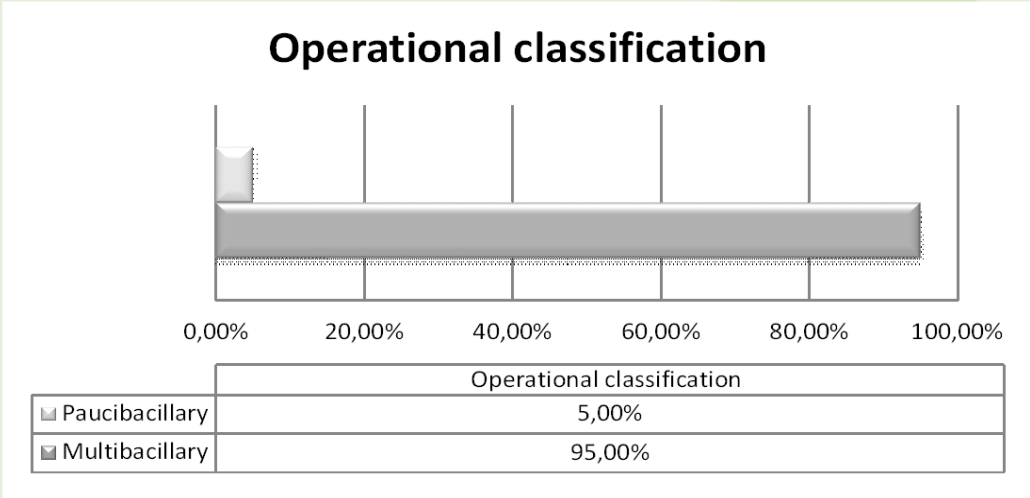


Figure 1 - Operational classification of elderly people affected by leprosy. São Luís, MA, 2013.

Among the clinical forms of leprosy, there is a higher prevalence of late form (60,0%) and Lepromatous (25,0%) (Figure 2), which represent the most advanced forms of leprosy, which are highly contagious and potentially disabling, indicating in addition to a late diagnosis of the disease, the suspicion of hidden prevalence, responsible for the maintenance of infection sources in the elderly population.¹⁸ These obtained indeterminate form and only 3.3% had Tuberculoid way.

The diagnosis of leprosy in much of Brazil, it is still late, about a year and a half to two years after the onset of symptoms. The delayed seeking care in health services, lack of information about signs and symptoms, the difficulty in finding the individual services, customer service and/or trained professionals to detect the disease, can be factors that influence late diagnosis. Thus, in Brazil, 5,7% of people who discover they have leprosy already have sensory and/or motor injuries, deformities and disabilities that could be avoided.¹⁸

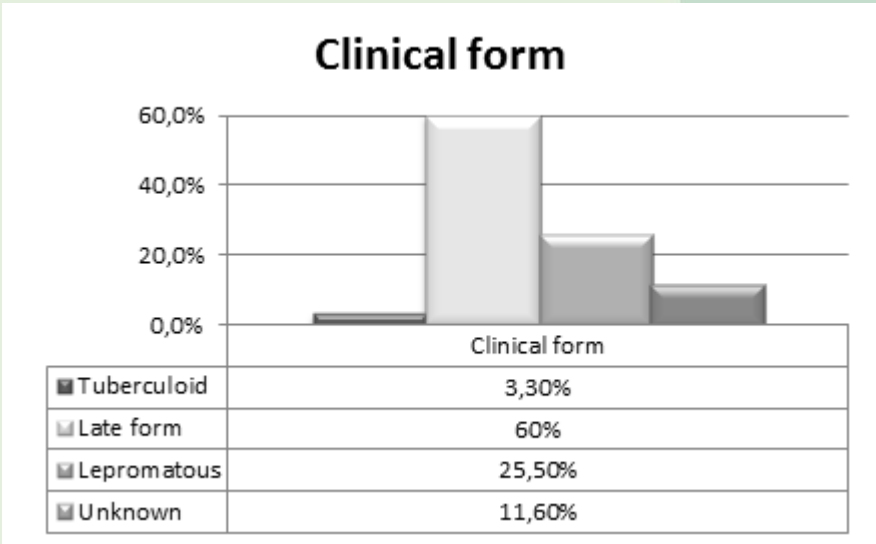


Figure 2 - Clinical form of older people affected by leprosy. São Luís, MA, 2013.

The evaluation of the degree of disability caused by leprosy within the criteria of the World Health Organization (WHO), considering only the inability injuries in hands, feet and eyes, to be more severe for everyday activities and simple diagnosis. Thus, disabling injuries such anatomical regions are graded according to their severity: mild (grade 0), moderate (grade 1) and severe (grade 2).¹⁷

Among the elderly leprosy affected by this study, grade 1 showed prevalent (45,0%), followed by degree 0 (28,0%) and grade 2 (17,0%) (Figure 3), thus demonstrating possible disability and even deformities among the population studied. In research with older people with leprosy history in Minas Gerais was identified greater severity of injuries, with 79,8% of participants showing grade 2 and 13,7% in grade 1. Among the elderly, 79,0% were considered partially dependent and 10,8% dependent for instrumental activities of daily living, according to the Lawton scale, focusing on the implications of leprosy for the elderly.¹⁹

Disabilities may be accompanied by severe pain, nerve sensitivity, edema, sensory and motor function or can develop painlessly, featuring the silent neuritis, which lack the findings of nerve pain or hypersensitivity thus the sensitivity changes and/or motor force are identified by directed physical examination, which makes it important periodic owner? Even in the absence of complaints.²⁰ Note also that the disability prevention actions depend on the awareness and training of professionals,²¹ in order to intervene in the process of care for people affected by leprosy, with the purpose of preventing physical disabilities and promote self-care, encouraging in their ability to work, social life and psychological aspects.

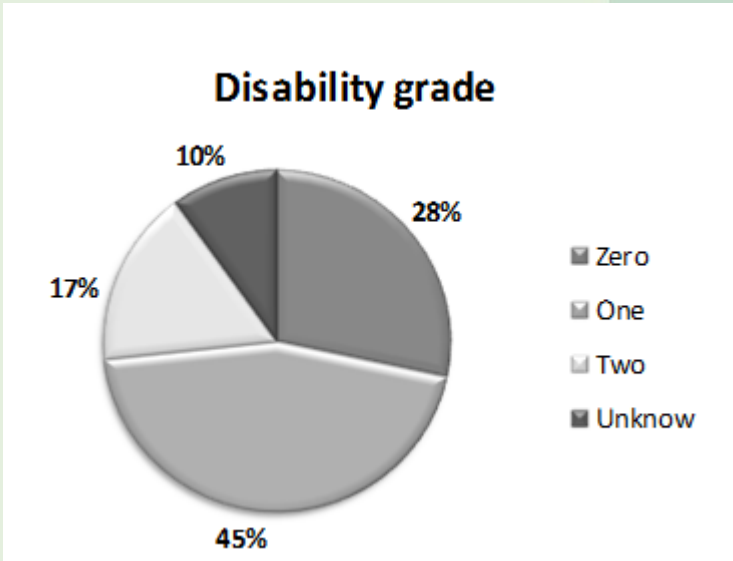


Figure 3 - The elderly disability grade affected by leprosy. São Luís, MA, 2013.

Regarding the specific treatment of the person with leprosy, appointed by the Ministry of Health - multidrug therapy (MDT) - standardized by the WHO. It is administered through standard scheme, according to the operational classification of the patient into paucibacillary (PB), with doses 6 to 12 months or Multibacillary (BM), with 12 doses for up to 18 months.⁶

Most older people with leprosy showed the highest frequency of the treatment regimen MDT/MB/12 doses (93,0%) compared to the MDT/PB/6 doses (5,0%), considering that most of the elderly had the operational classification multibacillary (95,0%).

In case of resistance to one or more drugs, which composes the currently used regimens, the replacement of the standard scheme for alternative schemes will happen when necessary under the supervision of a health services of greater complexity,⁶ as seen in only an elderly this study.

CONCLUSION

With regard to demographic and socio-epidemiological of older people affected by leprosy, it was realized that most were between 60-69 years old (53,3%), males (58,3%), brown colored (66,6 %), married (45%) and six (6) household contacts (76%).

Regarding clinical aspects, it was observed that in relation to the operational classification, 95% were multibacillary, especially for Dimorphic form (60%) under the Wirchowiana (25%). Most had inability to grade 1 (45%) and making use of multidrug therapy/Multibacillary/12 doses (93%).

The identification of this information may contribute to different care and management aspects of nursing care. The nurse must consider the existing health needs in their territory,

without losing sight of the socio-epidemiological and clinical aspects experienced by carriers. This is of paramount importance in that concern the elderly, always seeking the care focused on the individual and family, in addition to maintaining the quality of life and comfort of the person above 60 years old.

Under the nursing care management, they are able to guide the process of decision and action taken, considering, for example, the organization of the physical environment; specific care to patients with leprosy; the observation of tolerance to toxicity caused by chemotherapy treatment, the disease progresses; and attention to the family, etc.

Considering the complexity of the topic discussed, it should be noted that there was no intention to exhaust the subject, but rather to cooperate with a portion of nursing knowledge in this area of expertise. In addition, there are referrals to the need for new scientific investigations, considering the lack of studies in the literature on the topic presented.

REFERENCES

1. Organização Mundial da Saúde. Guia global: Cidade amiga do idoso. Genebra: World Health Organization, [Internet]. 2008 [citado em 2013 Nov 04]. Disponível em: <http://www.who.int/ageing/GuiaAFCPortuguese.pdf>.
2. Brasil. Secretaria de Atenção a Saúde, Departamento de Ações Programáticas e Estratégicas, Área Técnica Saúde do Idoso, Ministério da Saúde. Atenção à Saúde da Pessoa Idosa e Envelhecimento [Internet]. Brasília: Ministério da Saúde, 2010 [citado em 2013 nov 08]. Disponível em: http://bvsms.saude.gov.br/bvs/publicacoes/atencao_saude_pessoa_idosa_envelhecimento_v12.pdf.
3. Brasil. Secretaria de Atenção à Saúde, Departamento de Atenção Básica, Ministério da Saúde. Envelhecimento e saúde da pessoa idosa [Internet]. Cadernos de Atenção Básica, n.19. Brasília: Ministério da Saúde, 2007 [citado em 2013 dez 07]. Disponível em: <http://bvsms.saude.gov.br/bvs/publicacoes/abcad19.pdf>.
4. Degani GD. Trauma em idosos: características e evolução [dissertação]. Ribeirão Preto: Escola de Enfermagem de Ribeirão Preto, Universidade de São Paulo; 2011.
5. Veras R. Envelhecimento populacional contemporâneo: demandas, desafios e inovações. Rev Saúde Públ [Internet]. 2009 mai/jun [citado em 2013 jan 20]; 43(3):548-54. Disponível em: <http://www.scielosp.org/pdf/rsp/v43n3/224.pdf>.
6. Brasil. Secretaria de Vigilância em Saúde, Departamento de Vigilância Epidemiológica, Ministério da Saúde. Guia de Vigilância Epidemiológica. 7ª edição. Série A. Normas e manuais técnicos [Internet]. Brasília: Ministério da Saúde, 2009 [citado em 2013 dez 03]. Disponível em: http://portal.saude.gov.br/portal/arquivos/pdf/gve_7ed_web_atual.pdf.
7. Rodrigues LC, Lockwood DNJ. Leprosy now: epidemiology, progress, challenges, and research gaps. Lancet Infect Dis [periódico na Internet]. 2011 Jun [citado em 2015 Mar 09]; 11(6):464-70. Disponível em: www.thelancet.com/infection

8. Ducatti I. A hanseníase no Brasil na Era Vargas e a profilaxia do isolamento compulsório: estudos sobre o discurso científico legitimador [dissertação]. São Paulo: Departamento de História, Programa de Pós-Graduação em História Social, Universidade de São Paulo; 2009.
9. Souza JFM, Sena TCCB. O envelhecer institucionalizado de sujeitos sequelados pela Hanseníase da U/E Abrigo João Paulo II. *Revista Kairós Gerontol* [periódico na Internet]. 2014 mar [citado em 2015 mar 09]; 17(1):103-23. Disponível em: <http://revistas.pucsp.br/index.php/kairos/article/view/19879>
10. Secretaria de Estado da Saúde, SES. Casos de Hanseníase do Município de São Luís por Faixa Etária em 2012. SINANNET/TABWIN, São Luís: SES, 2012.
11. Brasil. Conselho Nacional de Saúde. Resolução N. 196/96. Decreto N. 93.933 de janeiro de 1987. Estabelece critérios sobre Pesquisa envolvendo Seres Humanos, Bioética. 1996; 4(2)15-25.
12. Ferreira LO. Qualidade de vida em pacientes idosos portadores de hanseníase [dissertação]. Brasília - DF: Pró-Reitoria de Pós-Graduação e Pesquisa Stricto Sensu em Gerontologia, Universidade Católica de Brasília; 2012.
13. Cheng SP, Wang TF, Tang FI, Chu NK, Chen IJ. The influence of high-rise residence on physical activity and quality of life among older people with leprosy in a retirement community. *Ageing and Society*. [periódico na Internet]. 2014 Jan [citado em 2015 Mar 08]; 34(1):90-105. Disponível em: <http://journals.cambridge.org/ASO>
14. Lustosa AA, Nogueira LT, Pedrosa JIS, Teles JBM, Campelo V. The impact of leprosy on health-related quality of life. *Rev Soc Bras Med Trop* [periódico na Internet]. 2011 Sept/Oct [citado em 2013 Dez 02]; 44(5):621-6. Disponível em: <http://www.scielo.br/pdf/rsbmt/v44n5/19.pdf>.
15. Durães SMB, Guedes LS, Cunha MD, Magnanini MMF, Oliveira MLWDR. Estudo epidemiológico de 107 focos familiares de hanseníase no município de Duque de Caxias - Rio de Janeiro, Brasil [periódico na Internet]. *An Bras Dermatol*. 2010 jan/jun [citado em 2013 nov 10];85:339-45. Disponível em: <http://www.scielo.br/pdf/abd/v85n3/a07v85n3.pdf>.
16. Dessunti EM, Soubhia Z, Alves E, Aranda CM, Barro MPAA. Hanseníase: o controle dos contatos no município de Londrina-PR em um período de dez anos. *Rev Bras Enferm* [periódico na Internet]. 2008 nov [citado em 2013 dez 03];61(esp):689-93. Disponível em: <http://www.scielo.br/pdf/reben/v61nspe/a06v61esp.pdf>.
17. Brasil. Ministério da Saúde. Gabinete do Ministro. Portaria no 3.125, de 7 de outubro de 2010. Aprova as diretrizes para vigilância, atenção e controle da hanseníase [Internet]. 2010 [citado em 2015 fev 20]. Disponível em: http://portal.saude.gov.br/portal/arquivos/pdf/portaria_n_3125_hansenia_2010.pdf.
18. Arantes CK, Garcia MLR, Filipe MS, Nardi SMT, Paschoal VDA. Avaliação dos serviços de saúde em relação ao diagnóstico precoce da hanseníase. *Epidemiol Serv Saúde* [periódico na Internet]. 2010 abr/jun [citado em 2013 dez 02];19(2):155-64. Disponível em: <http://scielo.iec.pa.gov.br/pdf/ess/v19n2/v19n2a08.pdf>.
19. Silva AC, Ferreira RC, Ferreira MAA, Ribeiro MTF. Association between the degree of physical impairment from leprosy and dependence in activities of daily living among the elderly in a health unit in the State of Minas Gerais. *Rev Soc Bras Med Trop* [periódico na Internet]. 2014 Mar/Apr [citado em 2015 Mar 10]; 47(2):212-17. Disponível em: http://www.scielo.br/scielo.php?pid=S0037-86822014000200212&script=sci_arttext
20. Brasil. Secretária de Vigilância em Saúde, Departamento de Vigilância em Saúde, Ministério da Saúde. Manual de prevenção de incapacidades. 3ª ed [Internet]. Brasília: Ministério da Saúde;

2008 [citado em 2013 dez 07]. Disponível em: http://bvsms.saude.gov.br/bvs/publicacoes/manual_prevencao_incapacidades.pdf.

21. Nascimento GRC, Barrêto AJR, Brandão GCG, Tavares CM. Ações do enfermeiro no controle da hanseníase. Rev Eletr Enf [periódico na Internet]. 2011 out/dez [citado em 2013 nov 25];13(4):743-50. Disponível em: <http://www.fen.ufg.br/revista/v13/n4/v13n4a20.htm>.



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